

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (original): An inspection apparatus comprising:

an inspection chip for inspecting a conductive pattern of a circuit board in a non-contact manner;

an insulative package mounting said inspection chip thereon with allowing an inspection surface of said inspection chip to be exposed out of said insulative package;

a chip-side bump electrode provided at each of electrode pads of said inspection chip;

a package-side bump electrode provided at a lead of said package;

an anisotropic conductor disposed to cover at least said chip-side bump electrode and said package-side bump electrode; and

a conductor layer located on said anisotropic conductor and extending at least in the range of said chip-side bump electrode to said package-side bump electrode, wherein said anisotropic conductor is thermo-compression bonded in between said conductor layer and said chip-side bump electrode and in between said conductor layer and said package-side bump electrode, so as to

electrically connect said chip-side bump electrode with said package-side bump electrode through said conductor layer.

Claim 2 (original): An inspection apparatus as defined in claim 1, wherein said package includes a recessed portion on the front surface side thereof, wherein said inspection chip is embeddedly mounted in said recessed portion.

Claim 3 (previously presented) An inspection apparatus as defined in claim 2, wherein said package has an end face on the front surface side thereof approximately flush with said inspection surface of said inspection chip.

Claim 4 (original): An inspection apparatus as defined in claim 1, wherein said anisotropic conductor is disposed to extend from said chip-side bump electrode to said package-side bump electrode.

Claim 5 (original): An inspection apparatus as defined in claim 1, wherein said anisotropic conductor is disposed to approximately cover the entire front surface of said inspection chip.

Claim 6 (original): An inspection apparatus as defined in claim 1, wherein said conductor layer is composed of a conductor film formed in a planar shape and approximately in parallel with said inspection surface of said inspection chip.

Claim 7 (original): An inspection apparatus as defined in claim 1, which further includes an insulative film disposed to cover approximately the entire front surface of said inspection chip.

Claim 8 (original): An inspection apparatus as defined in claim 1, wherein said package includes a through hole penetrating from the front surface to the rear surface of said package, and an external electrode provided at said rear surface, wherein said lead is electrically connected to said external electrode through said through hole.

Claim 9 (previously presented): An inspection apparatus comprising:

- an inspection chip for inspecting a conductive pattern of a circuit board in a non-contact manner;
- an insulative package mounting said inspection chip thereon with allowing an inspection surface of said inspection chip to be exposed out of said insulative package;
- a chip-side bump electrode provided at each of electrode pads of said inspection chip;
- a package-side bump electrode provided at a lead of said package;
- an anisotropic conductor disposed to cover at least said chip-side bump electrode and said package-side bump electrode; and
- a conductor layer located on said anisotropic conductor and extending at least in the range of said chip-side bump electrode to said package-side bump electrode, wherein said anisotropic conductor is thermo-compression bonded in between said conductor layer and said chip-side bump

Application No. 09/926,347
Response dated August 27, 2004
Reply to Office Action of June 9, 2004

electrode and in between said conductor layer and said package-side bump electrode, so as to electrically connect said chip-side bump electrode with said package-side bump electrode through said conductor layer, wherein an inspection signal applied to said conductive pattern is detected through a coupling capacitance lying between said inspection chip and said conductive pattern.

Claim 10 (original): An inspection apparatus as defined in claim 9, wherein said inspection chip includes a plurality of sensor elements for detecting said inspection signal, wherein an image data for one pixel is generated base on one of said sensor elements.

Claim 11 (canceled)

Claim 12 (previously presented): A holder as defined in claim 17, wherein said claw is adapted to contact a part of said inspection apparatus so as to define said upper limit position.

Claim 13 (previously presented): A holder as defined in claim 17, which further includes a probe mounted on said holding table and penetrating said elastic member to contact an electrode provided in said inspection apparatus, said probe being elastically displaceably mounted on said inspection apparatus.

Claim 14 (canceled)

Application No. 09/926,347
Response dated August 27, 2004
Reply to Office Action of June 9, 2004

Claim 15 (currently amended): A holder for an inspection apparatus as defined in claim 18, wherein said holder is adapted to hold said inspection apparatus with keeping said inspection apparatus in a slanted position, said inspection apparatus including a packaged inspection chip for inspecting a conductive pattern of the [a] circuit board in said [a] non-contact manner.

Claim 16 (canceled)

Claim 17 (currently amended): A holder for holding an inspection apparatus, said holder comprising:

- a holding table;
- an elastic member provided on the holding table;
- a holding member mounted on the holding table; and
- a claw provided on the holding member;

wherein the [[an]] inspection apparatus, having a step down portion at an upper surface of the inspection apparatus, is held on the elastic member, engaging the step down portion with ~~between the elastic member and the claw,~~ and wherein the inspection apparatus has an external electrode electrical terminal on the outside surface thereof, thereby inspecting a conducting pattern of a circuit board in the inspection apparatus in a non-contact manner.

Claim 18 (currently amended): A holder for holding an inspection apparatus, said holder comprising:

a holding table;

an elastic member provided on the holding table; and

an engaging member provided on an upper surface of the elastic member

wherein the ~~[[an]]~~ inspection apparatus, having a step down portion at an upper surface of the inspection apparatus, is held on the elastic member, engaging the step down portion with the engaging member, and wherein the inspection apparatus has an external electrode electrical terminal on the outside surface thereof, thereby inspecting a conducting pattern of a circuit board in the inspection apparatus in a non-contact manner.

Claim 19 (currently amended): A holder for holding an inspection apparatus, said holder comprising:

a holding table;

an elastic member provided on the holding table;

a probe mounted on the holding table to extend to the upper surface of the elastic member;

a holding member mounted on the holding table; and

a claw provided on the holding member;

wherein the ~~[[an]]~~ inspection apparatus, having a step down portion at an upper surface of the inspection apparatus, is held on the elastic member, engaging the step down portion with

Application No. 09/926,347
Response dated August 27, 2004
Reply to Office Action of June 9, 2004

~~between the elastic member and~~ the claw, wherein the inspection apparatus has an external
electrode electrical terminal on the outside surface thereof, and wherein the external electrode
electrical terminal contacts the probe, thereby inspecting a conducting pattern of a circuit board in
the inspection apparatus in a non-contact manner.